

## **ABSTRACT**

**“TO STUDY THE MATERNAL AND PERINATAL OUTCOME IN TERM ANTENATAL MOTHERS WITH BORDERLINE OLIGOHYDRAMNIOS WHOSE FETAL CERE BROPLACENTAL RATIO >1”**

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### **Aim:**

The aim of the present study was to determine the maternal and perinatal outcome of borderline oligohydramnios whose fetal cerebroplacental perfusion >1 and to evaluate the effectiveness of using colour Doppler ratio of CPR for deciding upon the mode of delivery of fetus

### **Primary Objective(s):**

The primary objective is to determine the relationship between borderline oligohydramnios whose fetal cerebroplacental perfusion >1 and

1). Maternal outcome

a) spontaneous vaginal delivery

b)induction of labour whether mechanical or chemical;

2) Perinatal outcome

**Secondary Objective(s):**

To assess the feasibility and safety of using CPR of  $>1$  as a criterion to allow borderline oligohydramnios antenatal full-term mothers to go in for vaginal delivery

- To assess whether there is any appreciable or significant difference in the fetal wellbeing when such pregnancies are allowed for trial labour and vaginal delivery.
- To assess whether such an exercise can be used to define a subset of oligohydramniotic mothers namely the borderline ones ,so as to decrease the number of caesarean delivery in these subset

**METHODOLOGY**

**STUDY CENTER:** Institute of Obstetrics and Gynaecology , Egmore Madras  
Medical College Chennai-8

**Duration of Study:** 6months

**Study Design:** Prospective study

**Inclusion criteria**

- 1) Patients with correct dates or having early USG
- 2) Singleton live pregnancy
- 3) Vertex presentation
- 4) Gestational age 37 to 40 weeks
- 5) Membranes intact

- 6) True labour pain
- 7) AFI estimated by four quadrant technique at admission
- 8) Admission CTG done in all cases

### **Exclusion Criteria:**

#### **Maternal criteria:**

1. Patients with LMP not known or those not having early trimester USG to conform gestational age
2. PROM
- 3 Women with previous history of caesarean section
- 4 Polyhydramnios
- 5 Women with preeclampsia/gestational hypertension
- 6 Women with Gestational diabetes mellitus
- 7 Antepartum haemorrhage
- 8 Women with skeletal abnormalities
- 9 Smokers

#### **FETAL criteria:**

- 1 IUGR
2. Congenital malformation
- 3 Multifetal gestation
4. IUD

### **PROCEDURE:**

Participating antenatal women >37 weeks will undergo ultrasonography and liquor status will be recorded and those who have AFI score between 5.1 to 8, will be taken up for fetal Doppler study and if found to have CPR >1

## **RESULTS:**

In this connection we set out to study the outcome of 100 pregnancies which presented to our tertiary care centre, these antenatal mothers were first confirmed for the inclusive criteria and those who fulfilled the criteria were subjected to doppler study to calculate the CPR, if CPR was found to be  $> 1$ , those antenatal mothers were allowed to go in for a trial labour.

We found that out of 100 pregnancies who had a CPR of  $> 1$ , we were able to deliver the fetus of 82% with vaginal delivery itself, various studies have predicted that 40-50 % of oligohydramniotic pregnancies delivered through the caesarean route, whereas when we used doppler study to further subdivide oligohydramniotic pregnancies into favourable (CPR $>1$ ) and unfavourable (CPR $<1$ ), and allowed a trial labour in these favourable group we were able to cut down the percentage of pregnancies requiring caesarean section to 28%, nearly 12-20% improvement in the rate of vaginal delivery.

## **CONCLUSION:**

Age wise classification showed that almost 50% of the AN mothers were of the age group between 21 to 25 years, 42% of the infants born to Oligohydramnios mothers weighed between 2.5 to 3.5 kg.

When the favourable group out of these borderline oligohydramniotic mothers were allowed to go in for a trial labour, 82 % successfully delivered via the vaginal route, albeit 14% were through outlet forceps and 2% with vacuum

assisted vaginal delivery, we were able to cut down the caesarean route of delivery to mere 18%, which in return resulted in a better quality of life to the mother in the post partum period,as well as we could prevent the long term operative morbidity .

**KEY WORDS:**

1. CPR- Cerebral placental ratio.
2. IUGR – Intra uterine growth retardation.
3. CTG –Cardio-tocography
4. PROM - Premature rupture of membranes.
5. AFI – Amniotic fluid index